

## **DETAILED ACTION**

### ***Drawings***

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the fuel delivery means adapted to deliver fuel into the air before it passes through said throttle valve must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. The examiner has also made a 112 rejection as this feature is not understood or found in the disclosure as to how this is even possible.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

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and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claim limitation "a fuel delivery means adapted to deliver fuel into the air before it passes through said throttle valve" does not make sense as this is not found in the disclosure or seen how this is even possible.

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***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's cited prior art of Fig. 1 and page 4, lines 22-28 in view of Wijaya WO 0190552 A1.

Applicant's cited prior art of Fig. 1, page 1 line 9 - page 2, line 5 and page 4, lines 22-28 discloses a rotary valve internal combustion piston engine having a rotary valve 4 rotatable within a bore in a cylinder head 2 and a throttle valve 7 adjacent to the inlet port of said rotary valve. Applicant's cited prior art of Fig. 1, page 1 line 9 - page 2, line 5 and page 4, lines 22-28 lacks the throttle valve having an aperture adapted to be variably opened and closed between a first fully opened configuration and a second near closed configuration, said aperture being variably opened and closed by a plurality of coplanar plates mounted about the periphery of said aperture and movable towards the central region of said aperture, and at said first fully opened configuration and said second near closed configuration, the central region of said aperture is unobstructed to axial fluid flow. Wijaya discloses the advantage of using the throttle valve having an aperture being variably opened and closed by a plurality of coplanar plates mounted about the periphery of said aperture and movable towards the central region of said aperture, and at said first fully opened configuration and said second near closed

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configuration, the central region of said aperture is unobstructed to axial fluid flow in place of a butterfly valve. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use replace the butterfly valve as disclosed by applicant's cited prior art of Fig. 1, page 1 line 9 - page 2, line 5 and page 4, lines 22-28 with the throttle valve having a plurality of coplanar plates as disclosed by Wijaya as Wijaya teaches the advantage of using a throttle valve having a plurality of coplanar plates in place of a butterfly valve in order to provide a streamline that is in the center to "make the shape as well as the mass of the air body unchanged" and the examiner would like to note that the "second near closed configuration" is inherently within the range of movement as the plates would just not be all the way closed.

Applicant's cited prior art in view of Wijaya discloses each of said plates is pivotally mounted, the overall length of said throttle valve is small (relative) compared to the diameter of said aperture the plate is beak shaped having a concave edge and a convex edge meeting at a tip with said concave and convex edges are seen to be substantially equal in radius of curvature and said concave and convex edges are substantially equal in radius of curvature to that of said aperture, movement of said plurality of coplanar plates is actuated by an actuator ring 2d to move said plates simultaneously, said aperture is substantially circular, and a fuel delivery means is seen to be adapted to deliver fuel into the air before it passes through said throttle valve (the overall system of the prior art is seen to be the same).

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***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Beeman, Gamble, Barbato, Marjorie, Janssens, and Elder disclose valves with a plurality of coplanar plates that provide a central region of flow.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Bastianelli whose telephone number is (571) 272-4921. The examiner can normally be reached on M-Th (8-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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